DAQ Comments on CZA Permit application dated December 20, 2010
DuPont Edge Moor Plant
Two (48.16 MMBTU/hr each) natural gas fired boilers

January 26, 2011

Comments

The Company failed to mention in their application that they operate under a Plantwide Applicability Limits (PAL) permit. In the case of a PAL permit, the facility is issued a permit with facility wide emission caps. The facility has not mentioned lowering their emission cap, instead their plan appears to be to operate within the existing cap, and therefore, the emission reductions claimed as offset credits are not enforceable. The facility will add new emissions by adding two new boilers while it maintains the PAL. The facility proposes to operate ore roaster RX-1 only on natural gas and emission offsets for CZA Program will be provided by not using fuel oil on RX-1. (Ref: Cover letter dated 12/20/10 attached with air permit application). Per the offset proposal table identified by the air permit application, the applicant compares emissions based on natural gas and No. 5 fuel oil usage. In reality, the facility did not burn any No. 5 or No. 6 fuel oil in the last 3 years. The following table summarizes the total fuel used on RX-1 in last 5 years:

Year	Natural gas (MMCF)	No. 5 oil (Gallons)	No. 6 oil (Gallons)
2010	124.70	0.00	0.00
2009	109.10	0.00	0.00
2008	92.83	0.00	0.00
2007	108.00	12,000.00	0.00
2006	97.01	143,000.00	0.00

The following table shows the current permit limit and actual emissions for nitrogen oxides (NO_x) for the past 5 years. Proposing to stay within the current permit limit shows no real or permanent reduction in emissions. Actual emissions were not used to determine the baseline for emission reductions.

Pollutant	Current Permit Limit (PAL)	2010 Actual Emissions	2009 Actual Emissions	2008 Actual Emissions	2007 Actual Emissions	2006 Actual Emissions
NO_x	65	27.2	31.93	37.20	42	39

Other comments on CZA permit application

The following comments are based on the CZA Permit application where inconsistencies were noticed.

1. Incorrect emissions information. *Ref: Part 6A-Environmental Impacts, Page 13.*

   Table in Section 6.1 identifies increase or decrease over current emissions. The existing emissions used in this table for comparison are based on 2009 PAL Certification. The applicant used incorrect emissions information for NO_x and PM. The NO_x and PM emissions per the 2009 PAL Certification are 31.93 tons and 32 tons respectively instead of 31.51 tons and 23.78 tons. Therefore, by correcting these numbers, the 'percent change' will be different than it is in the application.

2. Incorrect emissions offset (tons/yr) information. *Ref: (1) CZA Permit application, Part 3-Project Summary, Page 6; (2) Air Permit application dated 12/20/10, Table titled 'Emission Reduction at the site- Offset proposal'.*

The table that summarizes the tons per year emissions offset for NO_x, VOC and PM appear to be incorrect based on lbs/MMBTU emissions factors provided by the company.

3. BACT to control emissions. *Ref: Part 6A- Environmental Impacts, Page 14.*

   Section 6.3 of Part 6A states the following: "The proposed installation incorporates Low NO_x Boilers and Flue Gas Recirculation. DNREC Air Quality Division accepts this as the Best Available Control Technology to control emissions from the proposed boilers."

   DAQ did not assess nor did DAQ accept DuPont's boilers equipped with Low NO_x and Flue Gas Recirculation system as BACT. Per the air permit application, the emission factor for NO_x =0.039 lb/MMBTU. As shown below, there are lower NO_x emission factors that can be used for BACT analysis.

RACT/BACT/LAER Clearinghouse data
Natural gas fired boiler, <100 MMBTU/hr

Company	Throughput	NO_x limit	Basis
MGM MIRAGE	4.20 MMBTU/hr	0.0143 lb/MMBTU	Case-by-case
MGM MIRAGE[1]	41.64 MMBTU/hr	0.0111 lb/MMBTU	Case-by-case
HARRAH'S OPERATING CO[2]	8.37 MMBTU/hr	0.0146 lb/MMBTU	BACT-PSD
COMPETITIVE POWER VENTURES	93.00 MMBTU/hr	0.0110 lb/MMBTU	BACT-PSD
SABINA PETROCHEMICALS LLC[3]	228 SCF/hr	0.0200 lb/MMBTU	LAER

1. 5800 hrs/yr operation, unit with low-NO_x burner and flue gas recirculation system.
2. The proposed boiler runs with two other existing (identical) boilers. Three boilers together=20,000 hrs/yr operation.
3. Short-term emission factor=0.0200 lb/MMBTU and long-term emission factor=0.007 lb/MMBTU

Recommendations

The DAQ does not believe that the emission reduction described in the application is real, there is no reduction in actual emissions or retirement of credits, and actual emissions were not used to determine a baseline for emission reductions. While permitted emissions will not increase due to this project, it is likely that actual emissions will increase. The DAQ recommends that the facility at a minimum be required to reduce the plantwide permit limits in the PAL in order to provide offsets for this project if these offsets are to be generated at the Edge Moor site, noting that these may represent a reduction in potential to emit and not real emission reductions.

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